

# INDEX TO VOLUME 165, JULY-DECEMBER, 1941

## AGRICULTURE

Ants, Elimination of	30
Farm Products in Motor Cars	342
Fertilizer, Hormones Added To	270
Grass, Studying Growth of	214
Lawn Maintenance	148
Seeds, Germination of	201

## AIR CONDITIONING

Air Conditioning and Heating	19
Airplane, Cooling, Warming	349
Cleaned Air Protects Records	274

## ARCHEOLOGY, ANTHROPOLOGY and ETHNOLOGY

Central American Excavations	261
Footprints, Pre-Historic	134
Lost Civilization, Alaskan	336
Noses, Typical American	277
Sitio Conte, Excavations at	261

## ARMY AND NAVY, See WAR

## ASTROLOGY, WHAT TO DO ABOUT

## ASTRONOMY

European Astronomy, Wartime	14
Meteor Study by Radio	80
Mt. Palomar Observatory	15
Pressures, Internal, in Earth and Stars	264
Solar Corona, Studying the	70
Solar Observations	132
Sun and Stars, Composition of	202
Sun's Distance Corrected	326
Universe, "Multiplication Table" of the	334

## AUTOMOBILES

Compression Ratio, Checking	86
Drivers, Insane	334
Engine Parts, Balancing	84
Farm Products in Motor Cars	342
Gasoline Economy, Achieving	335
Motor Car is Lightning Shield	52
Motor Cars, Post-War	323
Motor Cars, Trend in	131
Plastics in Automobiles	131
Tire Rebuilding	65
Traffic-Control by Radio	86
Trucks, Vehicular Tunnel	74

## AVIATION

Air Brakes for Dive Bombers	93
Air Safety Rules, CAB	349
Aircraft Armor	95
Aircraft Manufacture, Co-Operative	350
Airline Signal System	288
Airlines, Developments in	323
Airplane, Cooling, Warming	349
Airport Crane	351
Airports, Emergency	350
Autogiros on Convoy Duty	348
Barrage-Balloons	94, 348
Bomber, U. S. Navy, PB2Y-2	94
Bombers to Britain	247
Bombers, Plastic Enclosures for	23
Cabins, Supercharged	31
Civilian Pilot Program	351
Dive Bomber, Curtiss XSB2C-1	35
Engines Run-In Electrically	64
Factory, Pursuit Planes	287
Fighting Planes, Characteristics of	93
Floats, Plywood	289
Flying Suit, Heated	148
Gasoline Tank, Self-Sealing	35
Ground Trainer	225
Helicopter Records	34
Martin Bomber (Baltimore)	161
Noise Meter for Aircraft	351
Pilot Training With Gliders	20, 115, 224
Private Flying, Research in	225
Supercharging Cabins	161
Training, Man-Made Gale for	160
Transatlantic Service, Planning	223
Transport System, Maintaining Our	53, 115
Warplanes, Quality of American	119
Washington Airport	158, 288

## BIOGRAPHY and PORTRAITS

Hixon, Arthur W.	117
McCormick, Fowler	245
Slepian, Joseph	3

## BIOLOGY

Antigens Extracted from Germs	198
Evolution, Status of	179
Heredity Changes Forced	201

## BUSINESS

Duplicating Stencils, Visibility In	29
Office Machines, Noise Reduction in	28

## BUILDING CONSTRUCTION

Bombproof Manufacturing Plants	58, 328
Fire-Proof House Insulation	337
Houses, Prefabricated	257
Insulation, Cotton	63
Insulation, Home	208
Partitions, Prefabricated	63
Termite-Proofing	274
Wall Board, Insulating	283

## Glass Industry, Research in

Phonograph Records, Glass	150
Reflecting Surface, Glass-Sphere	214
Tape, All-Glass Adhesive	88

## HEATING and VENTILATING

Air Conditioning and Heating	19
Blackout Plant, Glass Insulated	328
Cooling Home in Summer	88
Heating Factories, Units for	322

## INDUSTRY

Accidents Due to Attitudes	255
Aircraft Production, Trend of	195
Bearings, Ball and Roller	188
Benzene Process, Revival of	192
Bolts Frozen in Assembly	346
Bores, Examining Interior of	284
Burr Removal by Tumbling	286
Casine, Price of	256
Caulking Compound, Flexible	149
Cheese Industry, United States	13
Chemical Industry, Trend of	257
Coffee Plastic	65
Drafting Device	91
Drawing Board, Illuminated	216
Dust Collector, Machine Shop	32
Education, Trade	307
Engine Parts, Balancing	84
Fatigue and Skill of Workers	137
Filter, Powdered Metal	154
Food Packaging, Film for	65
Furnaces, Stainless Steel in	193
Gas Permeability, Measuring	285
Glass Industry, Research in	195
Gloves, Air-Cooled	64
Gloves, Hand Protecting	220
Grinding Compound (Gunk)	221
Headband, Cool	83
Heat Treatment, Electro-Magnetic	59
Heaters, Immersion Type	219
Infra-Red Drying	124
Inventions, Value of	179
Inventive Skill in Industry	75
Magnifier, Inspection	222
Motor Cars, Trend in	131
Nuts, Elastic Stop	346
Paint and Light for Better Seeing	318
Parts Assembly, High-Speed	152
Photographic Transfer Film	92
Plastic Machine Parts	194
Plywood, Better Adhesives for	334
Pulley Drive, Variable-Speed	89
Radiant Energy Drying	124
Recorder Chart, Inkless	217
Refractory Clay, Bricks From	286
Safety Standards, Industrial	11
Smoke Detector	157
Stamps, Inspector's Marking	282
Standardization of Household Equipment	322
Steel Quality, Controlling	63
Steel Shortage, Scrap	321
Strip Mill, Fastest	256
Tape, All-Glass Adhesive	88
Tin Salvaging	13, 61
Vibration, Checking, in Machinery	282
Water Purity, Checking	127
Welding in Machine Tool Industry	8
Zinc Plating From Waste	345

## ENGINEERING, CIVIL and MECHANICAL

Blackout Plant, Glass Insulated	328
Connecticut River Power Development	204
Highway Bridge, Sacramento River	266
Locomotive, Fireless	148
Niagara Bridge	72
Non-Skid Highway Surface	74
Panama Highway	140
Santee-Cooper Power Project	24
Shovel, Stripping, Heated	272

## FIREARMS

Automatic Loading Rifle (Remington)	168
Cartridge Carrier, Rubber	359
Cartridges, Use The Right	105
Choke Tube, Mossberg	104
Forces in Gun Barrels	358
Learning to Shoot	42
Semi-Automatic Rifle (Johnson)	296
Sporting Arms, Production of	359
Training for Defense, Civilian	232, 359

## FISH and FISHING

Boots and Waders	42
Photography and Fishing	37
Tackle Stick	104

## FOODS

Cheese, United States Manufacture of	13
Food Packaging, Film for	65
Food Packaging, Foil Substitutes for	323
Fruit, Preserving Color of	216
Potatoes, Vitamin C in	278
Sugar, Identifying Types of	341

## FORESTRY

Forest Damage, Michigan	337
Trees, Vitamin B <sub>1</sub> in	272
Tung Trees in United States	278

## FUELS

Gas Storage, Liquefaction for	74
Gasoline Economy, Achieving	335
Gasoline, Theoretical Mileage from	212
Gasoline and Oil Transportation	251
Gasoline Tank, Self-Sealing	35
Oil Heating, Efficiency in	271

## GEOLOGY

Dust Storms Build Bluffs	340
Oil Location, Scientific	18
Oil Sources	199

## GLASS

Blackout Plant, Glass Insulated	328
Glare Reduction, Surface	335

## INSECTS

Ants, Elimination of	30
Grass, Insect Repelling	343
Insecticides, Development of	145

## LIGHT

Fluorescent Tubes, Modifying Color of	336
Paint and Light for Better Seeing	318
Photo-Electric Light Control	85
Reflectors, Chromium-Plated	12

## MEDICINE

Arm Ailment, Cause of	260
Asthma, Remedy For	137
Automobile Drivers, Insane	334
Bacterial Warfare	56
Blood Pressure, Study of	135
Burns, Sulfadiazine for	332
Cancer, Liver	69
Cancer, Prostate	197
Cataract, Cause of	196
Diagnosis, New Procedure for	69
Diet, Adequate	260
Epilepsy, Treatment of	136
Fatigue and Skill	137
Gas Poisoning Treated by X-Ray	201
Glasses, Eye Protective	81
Glassware, Checking Cleanliness of	276
Gonorrhea, Sulphonamide For	68
Heat Lamp, Self-Contained	338
Insanity, Essentials of	330
Insemination, Artificial	137
Ivy Poisoning, Prevention of	31, 69

Peritoneoscope	258	Church Spires	100	RESEARCH		
Remedies, Old-Fashioned	198	Close-Up Work	102	Bats, Blind Flying of	78	
Salt, Replacing Body	68	Color in Early Morning	293	Breath, Particles in	336	
Skull Repairs, Plates for	332	Color for Sky Pictures	355	Charred Documents, Reading	340	
Snake Venom, Healing With	66	Color Photography, Simplicity in	38	Films, Thin, Research on	317	
Stuttering, Cause of	28	Color Photography, Softness in	97	Glass Industry, Research in	195	
Sulfadiazine	68	Color, Polaroid Screen in	101	Lightning Research Indoors	201	
Sulfathiazole for Gonorrhea	68	Color Versus Black and White	165	Radioactive Biological Tracers	315	
Sunlamp, Self-Reflecting	137	Composition	101			
Swimming, Nose Protection in	198	Condenser Lenses, Cleaning	164			
Vitamin B Deficiency, Overcoming	260	Cowboy Photographer	166			
Vitamin B <sub>1</sub> , Source of	272	Diffusion, Degree of	353			
Vitamin C in Potatoes	278	Double-Toning	166			
<b>METALS and METALLURGY</b>						
Bessemer Process, Revival of	192	Fall Photography	229			
Corrosion-Proof Film	92	Ferris Wheel Pictures	293			
Filter, Powdered Metal	154	Film Edge, Unfixed	101	Conductive Rubber	156	
Gold From Sea Water	200	Filter Holders	101	Cushion for Fruit Sorting	336	
Inductive Hardening Process	255	Filters, Multiple	102	Fuel Hose, Self-Sealing	249	
Metal Reclamation, Large-Scale	310	Finders, Field of	164	Gaskets, Synthetic Rubber	152	
Oxygen Tanks, Shatter-Proof	337	Glare, Eliminating	164	Synthetic Rubber, Freeze-Resistant	254	
Parts, Sorting, Electrically	321	Hands in the Picture	100	Synthetic Rubber, Uses of	130	
Radioactive Atoms in Metallurgy	322	Heads, Cutting	38	Tire Rebuilding	65	
Reclamation by Welding	129	Hypo Eliminator	293			
Reflectors, Chromium-Plated	12	Hypo, Stock	97			
Steel Parts, Blackening	157	Kodachrome Rating	165			
Steel Quality, Controlling	63	Kodachrome Slides, Selling	166			
Steel Shortage, Scrap	321	Lens Sharpness	352			
Street-Car Tracks, Salvaging	255	Lighting and Exposure	102	Conducting Rubber	156	
Thickness Gage, Electric	90	Light Patterns	97	Cushion for Fruit Sorting	336	
Tin Finish, Rapid	335	Light Reflectors, Efficiency of	37	Fuel Hose, Self-Sealing	249	
Tin, Salvaging	13, 61	Local Reduction, Pipe Cleaner for	294	Gaskets, Synthetic Rubber	152	
Zinc Plating from Waste	345	Low-Sun Pictures	166	Synthetic Rubber, Freeze-Resistant	254	
<b>METEOROLOGY</b>						
Cloud Height, Daylight Measurement of	339	Negatives, Drying, by Infra-Red	40	Synthetic Rubber, Uses of	130	
Weather Service, Cost of	215	Photography and Fishing	37	Tire Rebuilding	65	
Weather Study At Sea	272	Polaroid Screens	164			
<b>MISCELLANEOUS</b>						
Coryphodon Skeleton Discovered	340	Portraits, Retouching	353			
Desk, Double-Top	212	Posing, Naturalness in	355			
Diamond Grading	280	Printing Paper, Coating of	38			
Floor Coverings, Testing	149	Print Smudges	102	Cape For Shooters, Camouflage	297	
Glue Spreader	212	Prints, Folding	41	Camping, Equipment for	169	
Ink, Water Set	214	Processing, Rapid Film	99	Camping, Keeping Dry When	232	
Magnifier, Illuminated	340	Scum Elimination	100	Swimmer's Air Trap	83	
Mastodon, Reconstruction of	333	Slides, Continuity With	353	Swimming, Nose Protection in	198	
Moistener, Envelope	216	Solution Temperature, Adjusting	355			
Nylon Thread	212	Solution Temperatures	167			
Ocean Depths Sounded by Radio	16	Spots, Colors	163			
Pearls, Fossil	85	Tanks, Cleaning, Developing	294			
Phonograph, Tandem Tone Arm	213	Temperature Standards	37			
Sea Bed Sampling	26	Theme Sequence, Movie	162	Commercial Operation in United States	13	
Seals Manufacture Fresh Water	276	Trimmer, Small	41	Large-Screen Television	4, 27	
Skin-Protective Film	85	Tripods, Weighting	230			
Snakes, Odor of	276	Variables, Eliminating	293			
Swimmer's Air Trap	83	Viewpoint, Low	100, 229			
Syphon, Charged Water	150	Weighing Chemicals	294			
Time Capsule, Replica of	88	Weights, Emergency	230			
Tobacco, Treatment of	62	Zoo Photographs	96			
<b>OIL and LUBRICATION</b>						
Container For Oil, Transparent	280	<b>PHYSICS</b>				
Dry Lubrication with Graphite	254	Atom Sorter, Portable	118, 144			
Lubricating at High Temperatures	128	Cosmic Rays, Theory of	18			
Oil From Coal	253	Electronic Camera	80			
Oil Heating, Efficiency in	271	Glass, Glare Reduction in	335			
Oil Location, Scientific	18	Ice, Seven Kinds of	142			
Oil Sources, Geological	199	Spectrometer, Portable Mass	118, 144			
Oil Transportation Facilities	251	Water, Complexity of	142			
Petroleum Derivatives	280					
Prospecting For Oil	200	<b>PLASTICS</b>				
<b>OPTICS</b>						
Automobile Uses of Plastics	131	Automobile Uses of Plastics	131			
Bitumen, Oldest Plastic	338	Bombers, Plastic Enclosures for	23			
Bombers, Plastic Enclosures for	23	Coffee Plastic	65			
Coffee Plastic	65	Contact Lenses	85			
Dress Form, Plastic	88	Dress Form, Plastic	88			
Filler, Cotton-Seed Hulls	130	Filler, Cotton-Seed Hulls	130			
Plastic Machine Parts	194	Plastic Machine Parts	194			
Plastic Paint, White	150	Plastic Paint, White	150			
<b>PAINTS and VARNISHES</b>						
Clock Stopping, Raduano	138	<b>PSYCHIC RESEARCH</b>				
Clock Stopping, Raduano	138	Clock Stopping, Raduano	138			
Tablet Levitation, Raduano	138	Poltergeist, Park's	324			
Thorne, Edward L., Seance	5	Tablet Levitation, Raduano	138			
Thorne Seance, Explanation of	76	Thorne Seance, Explanation of	76			
<b>RADIO</b>						
Battery For Portables, Storage	214					
Code, Learning The	30					
FM-AM Combination	131					
Forest Service "Wave Sprinkler"	279					
Meteor Study by Radio	80					
Short-Wave Beam Broadcasting	268					
Static, Eliminating Auto.	274					
Surveying Ocean Depths	16					
Traffic-Control by Radio	86					
<b>RAILROADS</b>						
Locomotive, Fireless	148					
Locomotives, Copper Mine	26					
Two-Car Units for Mountain Service	271					
<b>RAYS</b>						
Infra-Red Drying	124					
Radioactive Atoms in Metallurgy	322					
Radioactive Biological Tracers	315					
X-Ray, Portable, Million-Volt	12					
<b>PHOTOGRAPHY and MOVING PICTURES</b>						
Blackout Bulbs, Coating	290					
Blackout Exposure Time	356					
Blackout Flash, Uses of	226					
Bottle Caps	101					
Cameras, Modernizing	36					
Cats, Photographing	166					
Chemicals, Measuring	165					
<b>RESEARCH</b>						
Bats, Blind Flying of	78					
Breath, Particles in	336					
Charred Documents, Reading	340					
Films, Thin, Research on	317					
Glass Industry, Research in	195					
Lightning Research Indoors	201					
Radioactive Biological Tracers	315					
<b>RUBBER</b>						
Conductive Rubber	156					
Cushion for Fruit Sorting	336					
Fuel Hose, Self-Sealing	249					
Gaskets, Synthetic Rubber	152					
Synthetic Rubber, Freeze-Resistant	254					
Synthetic Rubber, Uses of	130					
Tire Rebuilding	65					
<b>SAFETY</b>						
Accidents in Oil Industry	141					
Bombs, Disposing of	215					
Fire Extinguisher, Rapid	30					
Oxygen Diving Apparatus	86					
Safety Standards, Industrial	11					
Smoke Detector	157					
<b>SPORTS</b>						
Cape For Shooters, Camouflage	297					
Camping, Equipment for	169					
Camping, Keeping Dry When	232					
Swimmer's Air Trap	83					
Swimming, Nose Protection in	198					
<b>TELEVISION</b>						
Commercial Operation in United States	13					
Large-Screen Television	4, 27					
<b>TEXTILES</b>						
Fibers, Percentage Use of	274					
Silk, Substitutes for	257					
<b>TOOLS</b>						
Clamp, One-Ton Grip	218					
File, Non-Clogging	88					
Filing, Hand Tool For	32					
Grinder, Double End	92					
Grinders, Eye Shields for	154					
Hand Tool, Vibrating	338					
Holding Tool, Flexible Shaft	221					
Marking Tools	155					
Polishing Wheels, Rubber	33					
Presses, Hydraulic Production	347					
Sander, Reciprocating	282					
Sanding Machine, Heavy-Duty	222					
Saw, Motorized Scroll	271					
Screw Driver, Double Ended	278					
Tool Blades, Inserted	152					
Wire Stripper	152					
<b>WAR</b>						
Anti-Aircraft Gun, U. S. 90mm	314					
Autogiros on Convoy Duty	348					
Bacterial Warfare	56					
Blackout, Reversed	58					
Blackout Value Questioned	250					
Bombers to Britain	247					
Bombrook Manufacturing Plants	58, 328					
Dive Bomber, Curtiss XSB2C-1	35					
Engineers, Army, Work of	311					
Fighting Planes, Characteristics of	93					
Gas Masks For Civilian Use	149					
Glider Training for Pilots	20, 115, 224					
Large Military Needs	75					
Machine Gun, 20mm	250					
Oxygen Tanks, Shatter-Proof	337					
Reconnaissance Cars, Half-Track	123					
Tank Design Headaches	187					
Tank, M-3	58					
Tank, Riding in an Army	183					
Tanks, United States Army, On Parade	182					
Training for Defense, Civilian	232, 359					
Warplanes, Quality of American	119					
War-Time Inventions, British	314					
<b>WELDING</b>						
Brazing Unit, Portable	218					
Cables, Flexible	33					
D. C. Welding, Stored Energy	191					
Lenses, Blue Glass	12					
Machine Tool Industry, Welding In	8					
Reclamation by Welding	129					
Refrigerated Welding Points	344					
Ships, Welded	13					
Welder's Goggles, Shielded	220					

